

# **California Energy Action Plan**

## **Goal 1 Optimize Energy Conservation and Resource Efficiency**

### **STATUS REPORT**

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# California Energy Action Plan

## EAP Goals for Efficiency

- Meet California's energy growth needs while optimizing energy conservation
- Establish a 'loading' order of energy resources that first optimizes increased conservation and efficiency
- Decrease per capita energy use and reduce toxic emissions and greenhouse gases through increased conservation and efficiency

## California Energy Action Plan

# CPUC Actions Taken to Optimize Energy Conservation and Efficiency

### Focus on Key Learning and Opportunities

- Joint Agency Collaborative Effort
- Comprehensive series of workshops held in Q1 and Q2 2004 to address opportunities to maximize cost effective energy efficiency savings achievements in CA.
- Workshops topics included: customer feedback, savings goals and targets, program evaluation, partnerships, and overall administration of EE programs and activities.

# California Energy Action Plan

## Key Areas of Focus

- **Funding**
- **Savings Goals and Targets**
- **EE Administration Structure and Evaluation**
- **Climate Change**

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## Funding for Energy Efficiency Programs and Activities

- **Funding Increase Approved:** CPUC increased energy efficiency funding beginning in program year 2004 by emphasizing cost effective EE programs in utility procurement planning loading order
- **Result:**  
EE statutory PGC funding: approx. \$289 million/year  
Additional EE Utility Procurement funding approved: \$110 million in 2004 and \$135 million in 2005

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### Estimated Savings Impacts for Program Years 2003 and 2004-2005

Program Year	2003 Achieved	2004-2005 Estimated
Funding	\$300 million	\$823 million
kWh savings	1.3 billion	3.72 billion
therm savings	34.2 million	44.3 million
kW savings	291 thousand	770 thousand

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## Savings Goals and Targets: 2005 and Beyond

- **Draft Decision Issued on Aug 3 for Comment**
  - Establishes a 3 year planning cycle
  - Coordinates EE savings & IOU procurement planning
  - Sets cumulative EE savings goals for 2004-2013:
    - 26,508 Gwh,
    - 6,892 MW, and
    - 290 million therms

## EE Administration Structure

- Effort completed to develop common language, shared view of administration functions and roles, and to establish criteria for evaluation proposals.
  - Proposals solicited from parties recommending administration structures in April '04.
  - Oral Argument scheduled on September 30.

## Climate Change

- **Ruling Issued on Aug 31 for Comment**
  - Encourages participation in the Climate Registry
  - Proposes GHG savings to be included as part of program tracking in addition to kW and kWh savings.
  - Expands scope of EE studies to include examination of potential for GHG emissions reductions from EE.

Note: All IOUs are active members in the Climate Registry.

## Conclusion

- Energy Efficiency Funding and Estimated Savings Increased for Program Years 2004 and Beyond
- Aggressive Pace Set and Met to Maximize Cost Effective EE Savings
- Anticipate CPUC Action Taken on Savings Goals, Climate Change, and Administration Structure by end of year

# California Energy Action Plan

## EAP Goals for Efficiency

- Meet energy growth while optimizing conservation
- Establish 'loading order' with efficiency first
- Decrease per capita end use

### **Energy Commission Leads the Following Efforts**

- Improve new and remodeled building efficiency
- Improve appliance efficiency
- Increase local government conservation and energy efficiency programs

## **California Energy Action Plan**

# **CEC Actions Taken to Improve Efficiency in New Buildings by 10%**

### **Building Efficiency Standards – Accomplishments to Date**

- New cost effective standards for 2005 adopted by CEC November 2003
- Standards approved by CBSC July 2004
- Estimated savings per year of construction  
180 MW, 475 GWhrs, 8.8 Mtherms
- Compliance method for residential lighting approved May 2004 – available now for early compliance
- Training programs and incentives available now.

# CEC Actions Taken to Improve Efficiency in New Buildings by 10%

### Building Efficiency Standards – Results for Next 12 Months

- Compliance manuals to be approved November 2004
- Computer programs for performance compliance to be approved Spring 2005
- Stepped up training efforts
- Discussions begun/will continue on ideas for 2008 building standards

# CEC Actions to Improve Appliance Efficiency

### Appliance Efficiency Regulations – Accomplishments to Date

- Implementing appliance regulations adopted in 2002, became effective March 2003
- Savings estimated to provide  
85 MW, 970 GWhrs, and 3 Mtherms

## CEC Actions to Improve Appliance Efficiency

### Appliance Efficiency Regulations – Results for Next 12 Months

- Begin aggressive new rulemaking
- NOPA, ISOR, Express Terms filed August 31 with Office of Administrative Law
- Rulemaking begins September 10
- Adoption expected December 2004
- Savings potential is 120 MW, 1500 GWh and 6 Mtherms

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# CEC Bond and Loans for Local Governments, Schools and Hospitals

### Bond and Loans – Accomplishments to Date

- Issued \$28 million in bonds in April 2003
- Provided \$34 million in loans since bond sale  
(bonds + \$6 million in ECAA and LJA funds)
- Loans to 45 governments, schools, etc.
- Expect \$4 million/year in savings from these loans (approx. 8 megawatts in saved)

## **California Energy Action Plan**

# **CEC Bond and Loans for Local Governments, Schools and Hospitals**

### **Bond and Loans – Results for Next 12 Months**

- Seamless reassignment of bond authority from CPA to I-Bank
- Issue new \$25 million bond by January 2005)
- Issue \$25 million in new loans from bond sale by April 2006

## Conclusion

- Standards provide a cost effective, integral part of the solution
- Aggressive new standards will add to savings achieved
- Bond and loan program provide dependable service to special needs sectors
- Great value in long term program design with research leading to incentives leading to standards

# California Energy Action Plan

## The CPUC Adopted Aggressive Dynamic Pricing Goals in 2003

- The Energy Action Plan calls for dynamic voluntary price-triggered programs that would reduce peak demand by 1,500 to 2,000 MW by 2007
- In June 2003, the Commission adopted a more aggressive long-term dynamic pricing MW goal for the utilities: 5% of system peak demand by 2007
  - Approximately 2,500 to 2,750 MW, based on estimate of 50,000 to 55,000 MW peak demand
- In June 2004, the following interim goals were authorized:

PG&E	SCE	SDG&E
333 MW	141 MW	47 MW

# California Energy Action Plan

## The CPUC Adopted New Dynamic Pricing Programs in 2003<sup>1/</sup>

- Four large-customer pilot programs
  - Critical Peak Pricing
  - Demand Bidding Program
  - CPA's Demand Reserves Partnership
  - Hourly Pricing Option (SDG&E only)
- 2-year small-customer pricing experiment – the Statewide Pricing Pilot (SPP)
  - Designed to test and estimate demand response of residential and small commercial customers
  - Approximately 2,000 customers currently participating
- Establish monitoring and evaluation protocols for these programs

[1] Developed collaboratively with the California Energy Commission and the California Power Authority.

# California Energy Action Plan

## Participation Levels for 2003 Large-Customer Dynamic Pricing Pilot Programs (as of July 2004)

		PG&E	SCE	SDG&E	Totals
<b>CPP</b>	No. of accounts	91	8	47	146
	Est. Curtailable Energy (MW)	17	1	8	25
<b>DBP</b>	No. of accounts	80	514	37	631
	Est. Curtailable Energy (MW)	71	87	13	171
<b>CPA DRP</b>	No. of accounts	63	73	21	157
	Est. Curtailable Energy (MW)	214	117	3	334
	Total Est. Curtailable Energy (MW)	302	205	24	531

# California Energy Action Plan

## Utility Spending for 2003 Large-Customer Dynamic Pricing Pilot Programs <sup>2/</sup> (as of July 2004)

	2003	2004	Total
PG&E	\$2.2 m.	\$1.1 m.	\$3.3 m.
SCE	\$900 k..	\$2 m.	\$2.9 m.
SDG&E	\$350 k.	\$205 k.	\$555 k.

[2] Per Commission decision, the utilities were authorized to spend \$33 million for 2003 and 2004.

# California Energy Action Plan

## The CPUC Modified Existing Programs and Spurred New Programs In Summer 2004<sup>1</sup>

- Moving schedule and dispatch responsibilities for the CPA Demand Reserves Partnership from DWR to the utilities (in process)
- Modified the 2003 programs to increase participation
- Adopted two new large-customer pilot programs:
  - 20/20 Program (SCE only)
  - E-SAVE Program (PG&E only)
- Authorized additional air conditioning cycling units (30,000) and Smart Thermostats (4,000) for SCE
- Authorized utility participation in the statewide “Flex Your Power Now” campaign

# California Energy Action Plan

## The CPUC has Started Planning for Additional Dynamic Pricing Programs for 2005<sup>1</sup>

- Workshops in progress to vet new proposals from the utilities and stakeholders. Examples include:
  - Allow aggregation of accounts for customers with multiple sites
  - Reduce the minimum load reduction requirement for Demand Bidding
  - Augment air conditioning load control program with Smart Thermostats and economic triggers (SCE only)
- Begin development of real-time pricing tariff design
- Final evaluations on 2003 large-customer programs and SPP due at the end of 2004.

# California Energy Action Plan

## The CPUC is Expediting its Review of the Costs and Benefits of

### Advanced Metering Infrastructure (AMI) <sup>1</sup>

- Advanced Metering Infrastructure: interval meters and associated communication infrastructure that enables participation on price-responsive tariffs, provides customers hourly usage pattern information, and promotes utility operating efficiency such as automated meter reading.
- The Commission directed the utilities to develop AMI business case analyses that will:
  - Identify the costs and benefits of implementing an AMI rollout (partial and full deployment)
  - Include scenarios with and without the benefit of demand response tariffs in place, as well as a 'business as usual' scenario (no AMI rollout)

# California Energy Action Plan

## The CPUC is Expediting its Review of the Costs and Benefits of

### Advanced Metering Infrastructure (AMI) <sup>1</sup> (con't.)

- The results of the 2-year small customer pricing pilot (SPP) will be used by the utilities in estimating the demand response benefits in their business case analyses
- The utilities may submit their business case analyses as early October 15 (but not later than December 15).